

10-23

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

.....YL..... NATIONAL PARK

MONTHLY REPORT

FILE No. 143

FOR

MARCH - 1923.

143- (March - 1923)

April 5, 1923

Dear Sir:

The following is my report on the operation of Yellowstone National Park for March, 1923:

I. GENERAL CONDITIONS:

March was an unusually cold month and high winds continued to cause considerable drifting. Skiing throughout the park was done with difficulty due to snow conditions. The mail stage was able to make its weekly trips over the road to Cooke City without experiencing a great deal of difficulty. The snow was badly drifted over the road between Mammoth and Gardiner several times after high winds but this did not seem to greatly handicap trucking activities of the Government, Transportation and Camps Companies.

Weather

The following records are quoted from the report for March of the Observer in charge of the local United States Weather Bureau at Mammoth Hot Springs, Park Headquarters:

Temperature: Monthly mean, 21.8° , is 4.7° below normal. Coldest March since 1917. Unusually cold weather was continuous from the 3d to the 25th, there being 8 days with temperature zero or below. The lowest, -14° , occurred on the 4th. The last six days were warm and sunshiny.

Precipitation: Total, 1.00 inch, is 1.18 inch below normal. During the first 25 days light snow occurred almost daily.

Snowfall: Total, 12.8 inches; normal 17.5. The greatest depth of snow on the ground, 21.4 inches on the 18th. Very little melting occurred until the 25th, after which the snow settled rapidly to 10.5 inches on the 31st. The 20-year average depth of snow at the end of March is 5.8 inches. In March, 1922, the snow melted more gradually during the month, while this year the depth remained to almost the end of the month, but at the close of the month there was but one inch more on the ground this year as compared with 1922.

Wind: Average hourly velocity 9.1 miles; somewhat higher than normal. Maximum velocity was 39 miles from the northwest on the 17th.

Sunshine: Percentage of possible 62; normal 57.

Snow Depths

Records by rangers show the snow at various stations to be as follows:

<u>Station</u>	<u>1923 March 31st</u>	<u>1923 Feb. 28th</u>	<u>1922 March 31st</u>
Lake	34	26	49
Snake River	50	43	64
Sylvan Pass	29		40
Riverside	26	30	40
Gallatin	31		23
Tower Falls	12	10	24
Gardiner		Drifts	
Slough Creek	18		
Buffalo Ranch	10	12	25
Canyon	37		56
Bechler River	72 (on 23rd)	58	76
Soda Butte		30	27
Thorofare		35	

The Union Pacific snow plow arrived at West Yellowstone on March 7th.

Travel: Attached is a copy of the Chief Ranger's travel report for March.

DEPARTMENT OF THE INTERIOR.
NATIONAL PARK SERVICE—YELLOWSTONE NATIONAL PARK.

CHIEF RANGER'S MONTHLY TRAVEL REPORT, MONTH OF March, 1923

	NORTH.		WEST.		EAST.		SOUTH.		ALL TRAIL ENTRANCES.		SUMMARY.	
	Cars.	People.	Cars.	People.	Cars.	People.	Cars.	People.	Horses.	People.	Cars.	People.
Automobile permits issued												
Automobile permits issued (complimentary)												
Cars entering second time												
Motor-cycle permits issued												
Total												
Passengers in horse-drawn vehicles												
Passengers on horseback		19									19	
Passengers on bicycles												
Passengers on foot											19	
Total incoming passengers with private transportation		19										
WITH HIRED TRANSPORTATION.												
Yellowstone Park Transportation Co												
Total incoming passengers with hired transportation												
TOTAL INCOMING PASSENGERS		19									19	

Total automobiles in public camping grounds	Total passengers Cooke City stage	SEASON TOTAL END OF LAST MONTH
Total automobile campers in public camping grounds	Total visitors Cave Falls—Bechler River Region	SEASON TOTAL TO DATE

504
523

II. PERSONNEL:

On March 1st there were 67 on the payrolls and on March 31st there were 68. The following list shows the number of appointees of various classes serving during the month, with a general statement of the kind of work in which they were engaged:

<u>No.</u>	<u>Class</u>	<u>Kind of work performed</u>
✓ 1	Superintendent	General administration and supervision of all activities in the park.
✓ 1	Asst. Supt.	Administration, purchasing, disbursing.
✓ 1	Asst. Supt.	Information, reports, etc.
✓ 2	Asst. Engineers	1 in charge of engineering work in park, 1 assisting. ✓
✓ 6	Clerks	1 Financial Clerk; 1 Cost Accounting Clerk; 1 Personnel, File and Report Clerk; 1 Clerk on Orders, Proposals and Vouchers, also handling Time and Payroll Work; 2 Stenographer-Typists on stenographic work.
✓ 3	Electricians	Operated power plant regular shift, including Sundays, read meters, did necessary line work
✓ 3	Foreman	1 in charge of Headquarters Corral; 1 on construction; 1 repairing dump wagons.
✓ 1	Telegraph Operator	Sent and received all Government Western Union Messages, operated one shift on telephone switchboard.
✓ 2	Telephone Switchboard Operators	Operated telephone switchboard daily shifts, including Sundays. (1 under temporary appointment, intermittent service- Auth. Sec. 13th Civil Service District).

<u>No.</u>	<u>Class</u>	<u>Kind of work performed</u>
✓ 1	Master Mechanic	In charge of shops and repair to heavy road machinery.
✓ 1	Blacksmith	General blacksmith work, including shoeing of horses in shop, overhauling and repairing tools and equipment.
✓ 1	Master Painter	General shop work, including painting equipment and buildings.
✓ 7	Laborers	Teaming, freighting, assisting mechanics, and miscellaneous work at headquarters.
✓ 1	Steward & Master of Transportation	In charge of all transportation and of storehouses.
✓ 1	Chief Buffalo Keeper	In charge of tame buffalo herd.
2	Asst. Buffalo Keepers	1 assisting Buffalo Keeper; 1 in charge of hay ranch operations at Slough Creek.
✓ 1	Master Plumber	In charge of general plumbing and water and sewer systems.
✓ 1	Auto Mechanic	On duty at power plant.
✓ 1	Machinist	Repairing equipment.
✓ 1	Carpenter	Repairing buildings at headquarters.
✓ 1	Chief Park Ranger	In charge of Ranger force.
✓ 1	Fish and Game Warden	In charge of special observation and reports on wild animals. Trapping predatory animals.
✓ 1	First Asst. Chief Park Ranger	In charge of Northern District.
✓ 2	Assts. Chief Park Ranger	1 on duty at Lake District. 1 in charge of Western District.

<u>No.</u>	<u>Class</u>	<u>Kind of work performed</u>
10	Park Rangers	Patrolling park borders, protecting game, miscellaneous duties.
5	Temporary Rangers	Patrolling, miscellaneous duties.
6	W A E Park Rangers	In charge of stations.

Leaves of Absence

Lee Webb, Park Ranger, March 1-3, 3 days.
 Lee Cottrell, Park Ranger, March 1-10, 9 days.
 Earl S. Bowman, Park Ranger, Mar. 3-26, 20 days.
 Luther Custer, Park Ranger, Mar. 1-28, 24 days.
 S. T. Woodring, Chief Park Ranger (noon) Mar. 2-3, $1\frac{1}{2}$ days.
 Joseph Joffe, Clerk, (noon) Mar. 2-3, $1\frac{1}{2}$ days.
 Wm. Wiggins, Master Plumber, March 3-5 (noon), $1\frac{1}{2}$ days.
 C. R. Stinnett, Blacksmith, Mar. 3-5 (noon), $1\frac{1}{2}$ days.
 W. N. Purdue, Park Ranger, March 5-15, 10 days.
 F. R. Marriott, Laborer (noon) Mar. 5-7 (noon), 2 days.
 Lucy Bilkert, Clerk, (noon) Mar. 3, $\frac{1}{2}$ da.
 Jas. H. McDevitt, Laborer (noon) Mar. 7-10 (noon) 3 days.
 Elvind T. Scoyen, Asst. Chief Park Ranger (noon) Mar. 8-10, $2\frac{1}{2}$ days.
 Wm. Wiggins, Master Plumber, (noon) Mar. 8-12, $2\frac{1}{2}$ days.
 Bert Stinnett, Master Mechanic, Mar. 9-14, 5 days.
 Julia S. Stockett, Clerk, Mar. 1-10, 9 days.
 Deate White, Foreman, Mar. 23-24, 2 days.
 A. R. Edwin, Clerk, Mar. 19-24, 6 days.
 J. D. Fraser, Machinist, Mar. 3, 1 day.
 J. D. Fraser, Machinist, (noon) Mar. 16, 17 (noon), 1 day.
 Lucy Bilkert, Clerk (noon) Mar. 21-22, $1\frac{1}{2}$ days.
 Joseph Joffe, Clerk, (noon) Mar. 20-21 (noon), 1 day.
 S. T. Woodring, Chief Ranger (noon) Mar. 20-21 (noon), 1 day.
 Wm. Purdue, Park Ranger, Mar. 16-19, 3 days.
 P. E. Bilkert, Financial Clerk, Mar. 22, 1 day.
 E. A. Allan, Electrician, Mar. 27-31, 4 days.
 Wm. Wiggins, Master Plumber, Mar. 24, 1 day.
 B. J. Finney, Clerk, (noon) Mar. 26, $\frac{1}{2}$ day.
 B. J. Finney, Clerk, (noon) Mar. 29, $\frac{1}{2}$ day.

John Bauman, Park Ranger, Mar. 24, 1 day.
Jas. Dupuis, Park Ranger, Mar. 31, 1 day.
Wm. Wiggins, Master Plumber, Mar. 31, 1 day.
Joseph Joffe, Clerk, Mar. 31, 1 day.
P. E. Bilkert, Financial Clerk, Mar. 31, 1 day.
A. C. D. Henman, Laborer, Mar. 10-14, 4 days.
Chas. R. Stinnett, Blacksmith, Mar. 31, 1 day.
S. T. Woodring, Chief Ranger, Mar. 31, 1 day.
Deate White, Foreman, Mar. 31, 1 day.
Fred C. Finch, Park Ranger, Mar. 31, 1 day.
Bert Stinnett, Master Mechanic, Mar. 31, 1 day.

Promotions

Mrs. Lucy Bilkert, Clerk, \$1320 per annum and quarters, plus increase of compensation, effective March 16, 1923, from Clerk, \$1200 per annum and quarters.

Furloughs

Harry R. Marshall, Auto Mechanic, \$1320 per annum, plus increase of compensation and quarters, furloughed Oct. 16, 1922, to April 15, 1923, inclusive.

Edmund J. McKeon, Auto Mechanic, \$1320 per annum, plus increase of compensation and quarters, furloughed Nov. 1, 1922 to April 30, 1923, inclusive.

Chas. W. Enochs, Foreman, \$1800 per annum, plus increase of compensation and quarters, furloughed Oct. 24, 1922, to April 23, 1923, inclusive.

Anton Koncilya, Buffalo Herder, \$80 per month, plus increase of compensation and quarters, March 1st to 31st, 1923, inclusive.

John H. Tuttle, Asst. Engineer, \$175 per month, plus increase of compensation September 19, 1922, to March 18, 1923, inclusive.

In addition to the regular employees listed above under appointment, the following were employed temporarily by the day:

	<u>March 1st</u>	<u>March 31st</u>
Laborers	1	2
Plumbers	1	1
Appointees	<u>65</u>	<u>65</u>
Total on Payroll	67	68

III. WORK COMPLETED

(a) Construction of Physical Improvements:

Fifteen gravel wagons were repaired and painted during the month.

A few warm days the latter part of the month caused the snow to melt on the Gardiner road. Two men were kept busy turning the water off to prevent damage to the roadway.

General office work was continued by the Engineering Department; plans made for the coming season and the profile of the Bechler River road completed

(c) Miscellaneous Improvement Work:

The Steward and Master of Transportation continued in the work of taking a physical inventory of all government supplies, and worked in the storehouses.

The Master Plumber reports having done maintenance work on water and sewer systems during the month, repair of engineer camp ranges, stove pipe, etc., completed plumbing work in old guard house, installed three new wash bowls and two new toilets, and remodeled piping system in buildings #26 and #27.

The Master Painter worked on signs and miscellaneous shop work ten days, papered two rooms in Brant's quarters, papered hallway, varnished second floor and kitchen floors, rewaxed downstairs floors and oiled floors in back hallway of Mr. Albright's quarters. Started work on quarters in old guard house.

The Master Mechanic and his helpers completely overhauled one Mack truck and one Reo, partly overhauled a Ford and made a new body for Kissel Car #13. Caterpillar

engine #1 was partly overhauled.

The Blacksmith and his helper repaired dump wagons, shod horses and did general work as it came in.

The Carpenter finished remodeling a section of the old guard house for quarters and helped with the installation of a new fire bell.

Buildings and Corrals: One man fired furnaces during the month. Two days were spent on roads, two days sawing wood, and 23 in the repairing of tents. One man hauled garbage, wood and coal most of the month.

The Power Plant was run constantly with the results shown in comparison for March, 1922, as follows:

	<u>1922</u>	<u>1923</u>
Total current generated, in KWH	18,500	34,641
Of this, sold to public utilities		
at 5¢ per KWH	1,295	1,311
Consumed for street lighting	2,063	1,281
Balance, consumed in Government		
buildings, for power and light-		
ing, lost on lines in transit	15,142	32,049
Peak load during month in KWH	42	72

The Telephone and Switchboard Office was open daily from 7:30 A.M. to 6:45 P.M.

Switchboard Calls

On Government Lines	3235
On Hotel Company Lines	308
On Long Distance Connections	<u>129</u>
Total	3672

Telegrams

Government Sent	66
Commercial Sent	<u>18</u>
Total	84
Government Received	35
Commercial Received	<u>29</u>
Total	64

Office Force

The office force was busy with the usual routine work, which includes orders, payment of vouchers, preparation of accounts, reports, general correspondence, etc. Work on the photograph albums and scrap books was continued.

942 pieces of official mail were received and 801 were sent out during the month.

Ranger Force

The protective force performed the usual routine work of patrolling the park, counting and observing game, and the usual duties about the stations.

IV. WORK IN PROGRESS

(a) Construction of Physical Improvements

Yellowstone Park Camps Company: The Camps Company resumed building operations at Mammoth Camp on March 12th. A crew of twenty men was employed. The severe weather immediately following hampered outside operations and delayed the enlargement of the crew. On the return of favorable weather on March 22nd the crew was increased to forty men. The shingling work of the new Main Building was completed on March 28th. The wrecking of the old main building was begun on March 29th.

It is planned not only to complete the new Main Building but also to construct thirty-two-room sleeping lodges before the opening of the tourist season.

Yellowstone Park Transportation Company: Two trucks have run throughout the month between Gardiner and Mammoth hauling hay, lumber, wheels and parts for automobiles. During March the addition to the bunk-house was begun which will consist of 30 rooms, to accommodate 60 men, and a large wash-room. An addition to the mess house is to be started at once.

Beginning the first of February 35 men, including painters, have been working on yellow busses, getting the cars into shape for the approaching season. Front wheels are to be

changed on 50 cars, all wheels on the 20 cars purchased last season, and lugs on the rear wheels of 100 cars. It is expected that this work will extend well into the month of June. There are seventy cars yet to go through the shop and as many to be painted.

Yellowstone Park Hotel Company: Because of the extensive alterations at the Lake Hotel and points of the Transportation Company it has been deemed advisable to delay until fall certain remodeling features at Mammoth, such as dining room enlargement, etc. However, some improvements are being made. Most rooms will have running water and several bathrooms have been added.

VII. POLICIES

There were no changes in policy during the month.

VIII. COST OF OPERATION

The cost of operation of Yellowstone National Park will be shown on the Cost Accounting Report for the month of February. This report will be forwarded shortly.

IX. OTHER MATTERS OF INTEREST

Wild Animals

Game Conditions: March was a severe winter month, and game in some sections suffered considerably. In the Gardiner District elk were in poor condition when the weather broke on the 26th, due to the snowfall and poor grazing conditions. Other game came through in good shape because of the fact that they are browsing animals and can live off weeds and shrubs which are not covered by the snow.

The greatest depths of snow on the ground for the winter were recorded the past month.

There was only one severe cold spell when the thermometer registered 13 below zero at headquarters. If the weather had been intensely cold in addition to other adverse conditions the loss in game would have been much larger.

Woodticks are causing all game a great deal of discomfort at this time.

Elk: The severe weather conditions of the first twenty-six days in March caused the elk to suffer considerably. On the 26th game conditions were at their lowest ebb for the entire winter. After that date the weather moderated and the elk started to move upward.

The herds that wintered around Gardiner and Mammoth came through in poorer shape than any. The Gardiner feed grounds led all other locations for the number of deaths and as there is less snow in this district than at any other place in the park the cause of the excessive deaths at this point must be attributed to the drought of last June which practically ruined the grass in lower altitudes.

The following is a statement of the number of deaths:

Gardiner	16
Along Gardiner River	4
Crippled and killed	3
Near Ice pond	1
Hellroaring	1
Killed on Gardiner fence	4
Near old road to Golden Gate	1
At Snake River	<u>2</u>
Total	32

The loss this winter has been about .4% of the herd.

There was practically no movement of elk until the 28th. Early in the month there were no signs along the Yellowstone River of an upward drift of the elk, but by the 29th there were hundreds of elk moving in that direction. Chief Ranger Woodring saw a total of 1,000 between Hellroaring and Gardiner and all of these were going up the river. The herd of 500 on the Gardiner feed grounds moved off on their own accord on the 29th. There is more bare ground visible now than at any time since the first of the year and grazing conditions can be considered good at present and will no doubt be excellent by the end of the month.

Elk or elk signs have been observed in the following unusual places: Hayden Valley, Upper Yellowstone, Squaw

Lake, Snake River, Gallatin and Riverside District, Bechler River, Pelican Creek and Jones Creek. The herd along the Upper Yellowstone numbers about 60, around Bechler River 34, and at Jones Creek about 6 or 7.

Park Ranger Wisdom reports that there is a large number in the Shoshone Forest near Wapiti Fork. Forest Rangers report having seen a band of 200. There are no accurate figures available relative to this herd, but they probably number several hundred.

Last year half of the herd near the Snake River Station was lost but this year only two calves have died and the remainder of the herd is in good shape.

Forest Rangers in the Gallatin National Forest report between 2,500 and 3,000 elk in their district. This herd is in excellent condition.

Mr. Dehner, Deputy Montana State Game Warden, reports that elk on the East side of the Yellowstone River, outside the park, are in good condition. Those on the west side are fair but in places their condition is very poor.

During the coming month a complete census of all elk in the park will be made. Every effort will be made to get an accurate count, in order that the increase and decrease of the herd in the future may be traced.

Antelope: The antelope herd is in excellent condition. A count made on March 30th totaled 253 head. This is the largest number found during the year and is as accurate a count as it is possible to get. The greatest number outside the park at any one time was 120 head and they wintered in excellent shape. At present they are close along the line and the fence has been raised to allow them to enter the park again. Observations the past winter show that about 75% of the herd are males.

Deer: Aside from a few killed by coyotes no deer have been lost the past winter. They are numerous in the Northern District and are frequently seen by rangers on patrol. Daily counts totaling over 50 have been made on several occasions. They are in excellent condition.

Moose: Assistant Chief Ranger Douglas reports seeing a total of 23 head in the Thorofare district. Signs have been observed in many sections of the park.

Wild Buffalo: The count of the wild buffalo is now about half completed. The investigations on the Pelican Creek side shows a total of 29 head. Men are now on the Lamar making a thorough count and will complete this about April 7th.

Buffalo, Tame Herd: The tame herd is in excellent shape. It is intended to turn the herd out within the next few days and discontinue feeding. There are prospects for an unusually large crop of calves. There were 426 buffalo on the feed ground at the ranch the entire month.

Bears: The first bear was seen near Mammoth on March 26th.

Other Animals: Woodchucks and ground squirrels are now out around Gardiner and all signs point to spring.

Feeding of Game: Feeding continued the entire month at Slough Creek, Buffalo Ranch and Yanceys. Improved weather conditions caused the elk to leave the Gardiner flats and feeding was discontinued there on the 28th.

It should be possible to discontinue feeding at all points by April 10th.

Below is a record of hay fed:

<u>Locations</u>	<u>1922</u>	<u>1923</u>
Slough Creek	95 tons	50 tons
Buffalo Ranch	125 "	130 "
Yanceys	27 "	16 "
Gardiner	<u>40</u> "	<u>29$\frac{1}{2}$</u> "
	287 "	225 "

Last year feeding was discontinued at Slough Creek on the 22nd and at Gardiner on the 15th.

There were 420 buffalo at the Buffalo Ranch, 800 elk and 4 buffalo at Slough Creek, 47 horses and 12 elk at Yanceys and 500 elk at Gardiner, being fed.

Predatory Animals: Only a few coyotes were killed during the past month. Predatory animals have shown but little disposition to go near baits and most of the animals accounted for were shot, poison and traps not being very effective.

Total coyotes killed during March 19
Killed in February and not reported 12

Total this month 31

Previously reported 176

Total October 1st, 1922. to April 1st, 1923 207

The coming month will be an important one from the standpoint of the predatory animal hunter. The method of hunting will shift from the animals themselves to location of their dens. We should be able to destroy a number of coyote and wolf litters during April.

Lon Ebo, a trapper in the Madison Valley, caught a Lynx and two kittens near the park line on Teepee Creek.

Sickness and Medical Attention

Dr. J. M. Wolfe, National Park Service physician, reports 15 resident calls and 35 office calls for the month of March.

Post Office

The business of the Post Office shows an increase from a year ago of approximately 25% for the quarter ended December 31, 1922, and 66-2/3% for the quarter ended March 31, 1923. To take care of this increased business Postmaster Lindsley has had the assistance of one clerk part time - approximately 6 hours a day, during the winter.

Religious Services

Regular church services were held in the Yellowstone Park Chapel by Mr. Wm. Friend Day, of the Episcopal Church, regularly every two weeks, namely on the morning of March 4th and evening of March 25th.

Amusements

Moving pictures were shown every Friday night and dances were held at the Canteen every Saturday night.

School

The following is the report for the month of March for the school which is under the direction of Mrs. Marriott:

Number of pupils enrolled	17
Number of pupils perfect attendance	9
Number days taught	20
Number days absence	32
Number days attendance	308
Number cases tardiness	3

IX. RECEIPTS AND REMITTANCES

Certified check #1447, dated March 10, 1923, drawn by E. H. Moorman, on the Northwestern National Bank, Livingston, Montana, to the Director, National Park Service \$ 3.55

Postal Money Order #51387, dated March 6, 1923, drawn by the Postmaster of Yellowstone Park, on the Postmaster at Washington, D. C. 2.72

Certified Check #566, drawn by H. W. Child, on the National Bank of Montana, Helena, Montana, to the Director, National Park Service 143.09

Certified Check #988, drawn by W. M. Nichols, on the National Bank of Montana, Helena, Montana, to the Director, National Park Service, 5.40

Total \$ 154.76

Sincerely yours,

Leroy Hill,
Acting Superintendent.
The Director,
National Park Service,
Washington, D. C.

BJF:ETS:JSS